



This month NASA celebrates our planet with *Earth Science Week*, October 10-16. Our theme is "Living on a Restless Planet". NES News is focusing on our restless skies and some of the most powerful things in them.

Featured Mission



EYES ON HURRICANES

One of NASA's missions is to develop a better understanding of Earth and to study the changes within the planet's environment. To accomplish this, NASA has satellites and ground programs that study and monitor hurricanes and

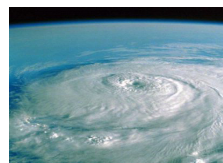
other weather-related events. In a joint effort with the National Oceanographic and Atmospheric Administration (NOAA), the Geostationary Operational Environmental Satellites (GOES) were launched to keep an eye on our atmosphere. The GOES fleet is made up of three satellites that measure atmospheric temperature, winds, moisture and cloud cover to help scientists predict and monitor potentially devastating storms approaching our shores, like hurricanes Ivan, Charley and Bonnie. See recent GOES images at

www.ghec.msfc.nasa.gov/GOES/

To learn more about hurricanes, visit

kids.earth.nasa.gov/archive/hurricane/index.html

Activity Corner



Be your own Hurricane Hunter!

You can track hurricanes just like a meteorologist. First you need to understand lines of **latitude** and **longitude**. These are imaginary lines that run along Earth's surface, with lines of latitude running east and west and lines of longitude running north and south. Latitude and longitude lines are used to measure distance on maps and can help locate hurricanes. Download your own chart to use for the next hurricane to track at

www.nhc.noaa.gov/AT_Track_chart.pdf

then listen for the latest longitude and latitude information during weather reports or on the web to start tracking your storm. Mark your chart and connect the dots!

Bytes and Bits

NASA's X-43A scramjet-powered aircraft is in the Guinness Book of World Records for achieving Mach 7 in March. This month the X-43A team is planning to beat its own record by reaching Mach 10. That is ten times the speed of sound, or about 7,200 mph (11,500 kph)! Learn more about this unmanned flight at

www.nasa.gov/missions/research/x43-main.html

NESN Puzzler

At what wind speed does a tropical storm become classified as a hurricane?

Send your answer to NESNews@nasa.gov with your name, your teacher's name and your school address to us for a chance to win a NASA prize!

NASA Explorers are people like you

Name: Sam James

Job Title: Research Model Technologist

Education: B.S. Mechanical Technology,
Elizabeth City State University



Would you believe you could turn a hobby into a career? That is exactly what Sam James did at NASA Langley Research Center (LaRC), where he builds model aircraft to be tested in wind tunnels. These models are studied to better understand the flight and structural features of real aircraft, which can help improve safety and mobility. Sam's team also constructs models to be displayed for the public. He is the co-inventor of the "Prototype Loom", which will help make lighter and faster aircraft. Sam thinks the coolest part of his job is using a laser tracker to get precise measurements for the models. It is not all work in the model shop. Sam finds time to workout and play basketball and volleyball at the LaRC fitness center.

NES Spotlight

Cumberland Middle School

Student population: 375

Teachers: 30

The community of Cumberland sits in the northwestern corner of Wisconsin, on an "island surrounded by rugged hills whose slopes and summits are adorned with brilliant foliage." Established as a logging community, Cumberland built its first schoolhouse in the winter of 1876-77. Today, the school's mission remains: *To develop citizenship and skills for life-long learning through a well-rounded education.* Cumberland Middle School believes teaching is the best way to really learn, so older students are often paired with younger students for activities. Recently CMS was awarded a Project Learning Tree grant to help preserve the community's water. Additionally, CMS has an outdoor classroom in the forest owned by the school. What a way to learn about the nature around you, Cumberland Middle School!

This month, NASA Administrator Sean O'Keefe and astronaut Heidimarie M. Stefanyshyn-Piper will visit the school to officially welcome the CMS community into the NASA Explorer Schools family.

www.cumberland.k12.wi.us



National Aeronautics and
Space Administration

Please send comments or questions to NESNews@nasa.gov
learners.gsfc.nasa.gov/NESNews